(1) GENERAL INFORMATION:

5   (2) INFORMATION FOR SEQ ID NO:1:
        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH:
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
10              (D) TOPOLOGY:linear
        (ii)    MOLECULE TYPE: DNA (oligonucleotide)
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:


15  FR-patched RFB4

VH:
Full length cDNA sequence (SEQ ID no. 1):
GAAGTGCAGCTGCTGGAGTCTGGGGGAGGCTTAGTGCAGCCTGGA
20  GGGTCCCTGAGGCTCTCCTGTGCAGCCTCTGGATTCTCCTTCAGTAT
CTATGACATGTCTTGGGTTCGCCAGGCACCGGGAAAGGGGCTGGA
GTGGGTCGCATACATTAGTAGTGGTGGTGGTACCACCTACTATCCA
GACACTGTGAAGGGCCGATTCACCATCTCCAGAGACAATGCCAAG
AACTCCCTGTACCTGCAAATGAACAGTCTGAGGGTGGAGGACACA
25  GCCTTATATTACTGTGCAAGACATAGTGGCTACGGTAGTAGCTACG
GGGTTTTGTTTGCTTACTGGGGCCAAGGGACTCTGGTCACTGTCTCT
TCA

Full length amino acid sequence (SEQ ID no. 2):
30  EVQLLESGGGLVQPGGSLRLSCAASGFSFSIYDMSWVRQAPGKGLEW
VAYISSGGGTTYYPDTVKGRFTISRDNAKNSLYLQMNSLRVEDTALYY
CARHSGYGSSYGVLFAYWGQGTLVTVSS

N-terminal sense strand template DNA sequence (SEQ ID no. 3):
35  CCTGGAGGGTCCCTGAGGCTCTCCTGTGCAGCCTCTGGATTCTCCTT
CAGTATCTATGACATGTCTTGGGTTCGCCAGGCACCGGGAAAGGGG
CTGGAGTGGGTCGCATAC

5' Primer for N-template (SEQ ID no. 4)
40  GAAGTGCAGCTGCTGGAGTCTGGGGGAGGCTTAGTGCAGCCTGGA
GGGTCCCTGAGG

3' Primer for N-template (SEQ ID no. 5)
GTAGGT<u>GGTACC</u>ACCACCACTACTAATGTATGCGACCCACTCCAGC
45  CC


C-terminal sense strand template DNA sequence (SEQ ID no. 6):

TTCACCATCTCCAGAGACAATGCCAAGAACTCCCTGTACCTGCAAA
TGAACAGTCTGAGGGTGGAGGACACAGCCTTATATTACTGTGCAAG
ACATAGTGGCTACGGTAGTAGCTACGGGGTTTTGTTTGCT

5      5' Primer for C-template (SEQ ID no. 7)
       GGT<u>GGTACC</u>ACCTACTATCCAGACACTGTGAAGGGCCGATTCACCA
       TCTCCAGAGACAAT

       3' Primer for C-template (SEQ ID no. 8)
10     TGAAGAGACAGTGACCAGAGTCCCTTGGCCCCAGTAAGCAAACAA
       AACCCCGTAGCT

       Joining site: KpnI
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15     VK:

       Full length cDNA sequence (SEQ ID no. 9)
       GATATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCCTCTGTGGG
       AGACAGAGTCACCATTAGTTGCAGGGCAAGTCAGGACATTAGCAA
20     TTATTTAAACTGGTATCAGCAGAAACCAGGTAAGGCTCCGAAACTC
       CTGATCTACTACACTAGTATATTACACTCAGGAGTCCCATCAAGGT
       TCAGTGGCAGTGGGTCTGGAACAGAATTTACTCTCACCATTAGCTC
       CCTGCAGCCAGAAGATTTTGCCACTTACTTTTGCCAACAGGGTAAT
       ACGCTTCCGTGGACGTTCGGTGGAGGCACCAAGGTGGAAATCAAA
25
       Full length amino acid sequence (SEQ ID no. 10)
       DIQMTQSPSSLSASVGDRVTISCRASQDISNYLNWYQQKPGKAPKLLIY
       YTSILHSGVPSRFSGSGSGTEFTLTISSLQPEDFATYFCQQGNTLPWTFG
       GGTKVEIK
30
       N-terminal sense strand template DNA sequence (SEQ ID no. 11)
       CTGTCTGCCTCTGTGGGAGACAGAGTCACCATTAGTTGCAGGGCAA
       GTCAGGACATTAGCAATTATTTAAACTGGTATCAGCAGAAACCAGG
       TAAGGCTCCGAAACTC
35
       5' Primer for N template (SEQ ID no. 12)
       GATATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCCTCTGTGGG
       AGAC

40     3' Primer for N-template (SEQ ID no. 13)
       ATAT<u>ACTAGT</u>GTAGTAGATCAGGAGTTTCGGAGCCTTACC

       C-terminal sense strand template DNA sequence (SEQ ID no. 14)
       CCATCAAGGTTCAGTGGCAGTGGGTCTGGAACAGAATTTACTCTCA
45     CCATTAGCTCCCTGCAGCCAGAAGATTTTGCCACTTACTTTTGCCAA
       CAGGGTAATACGCTTCCGTGGACGTTC

       5' Primer for C-template (SEQ ID no. 15)
       CTAC<u>ACTAGT</u>ATATTACACTCAGGAGTCCCATCAAGGTTCAGTGGC
50     AGT

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3' Primer for C-template (SEQ ID no. 16)
TTTGATTTCCACCTTGGTGCCTCCACCGAACGTCCACGGAAGCGTA
TT

Joining site: SpeI A$^\nabla$CTAG$_\Delta$T

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FR-Patched chimeric 1F5

VH:

Full length cDNA sequence (SEQ ID no. 17):
CAGGTGCAACTGGTGGCTTCCGGGGCTGAGGTAAATAAGCCTGGG
GCCTCAGTGAAGGTCTCCTGCAAGGCTTCTGGCTACACATTTACCA
GTTACAATATGCACTGGGTACGGCAGCCTCCTGGAAGGGGCCTGGA
ATGGATTGGAGCTATTTATCCAGGAAATGGTGATACTAGTTACAAT
CAGAAATTCAAGGGCAAGGCCACATTGACTGCAGACAAATCCTCC
AGCACAGCCTACATGCAGCTCAGCAGTCTGACATCTGAGGACTCTG
CGGTCTATTACTGTGCAAGATCGCACTACGGTAGTAACTACGTAGA
CTACTTTGACTACTGGGGCCAAGGCACCACTGTTACAGTCTCCTCT
GATCA

Full-length amino acid sequence (SEQ ID no. 18):
QVQLVASGAEVNKPGASVKVSCKASGYTFTSYNMHWVRQPPGRGLE
WIGAIYPGNGDTSYNQKFKGKATLTADKSSSTAYMQLSSLTSEDSAVY
YCARSHYGSNYVDYFDYWGQGTTVTVSSD

N-terminal sense strand template DNA sequence (SEQ ID no. 19):
AATAAGCCTGGGGCCTCAGTGAAGGTCTCCTGCAAGGCTTCTGGCT
ACACATTTACCAGTTACAATATGCACTGGGTACGGCAGCCTCCTGG
AAGGGGCCTGGAATGGATTGGA

5' Primer for N-template (SEQ ID no. 20)
CAGGTGCAACTGGTGGCTTCCGGGGCTGAGGTAAATAAGCCTGGG
GCCTCAGTGAAG

3' Primer for N-template (SEQ ID no. 21)
TGTA<u>ACTAGT</u>ATCACCATTTCCTGGATAAATAGCTCCAATCCATTCC
AGGCCCCT

C-terminal sense strand template DNA sequence (SEQ ID no. 22):
TTGACTGCAGACAAATCCTCCAGCACAGCCTACATGCAGCTCAGCA
GTCTGACATCTGAGGACTCTGCGGTCTATTACTGTGCAAGATCGCA
CTACGGTAGTAACTACGTAGACTACTTTGACTAC

5' Primer for C-template (SEQ ID no. 23)
TGAT<u>ACTAGT</u>TACAATCAGAAATTCAAGGGCAAGGCCACATTGACT
GCAGACAAATCCTCC

42

3' Primer for C-template (SEQ ID no. 24)
TGATCAGAGGAGACTGTAACAGTGGTGCCTTGGCCCCAGTAGTCAA
AGTAGTCTACGTA

Joining site: SpeI

VK:

Full-length cDNA sequence (SEQ ID no. 25):
GATATTCAACTCACACAGTCTCCATCAAGTCTTTCTGCATCTGTGGG
GGACAGAGTCACAATTACTTGCAGGGCCAGCTCAAGTTTAAGTTTC
ATGCACTGGTACCAGCAGAAGCCAGGATCCTCCCCCAAACCCTGGA
TTTATGCCACATCCAACCTGGCTTCCGGAGTCCCTAGTCGCTTCAGT
GGCAGTGGGTCTGGGACCGAGTTCACTCTCACAATCAGCAGTTTGC
AGCCTGAAGATTTCGCCACTTATTTCTGCCATCAGTGGAGTAGTAA
CCCGCTCACGTTCGGTGCTGGGACCAAGCTGACCGTTCTACGG

Full-length amino acid sequence (SEQ ID no. 26):
DIQLTQSPSSLSASVGDRVTITCRASSSLSFMHWYQQKPGSSPKPWIYA
TSNLASGVPSRFSGSGSGTEFTLTISSLQPEDFATYFCHQWSSNPLTFGA
GTKLTVLR

N-terminal sense strand template DNA sequence (SEQ ID no. 27):
TCAAGTCTTTCTGCATCTGTGGGGGACAGAGTCACAATTACTTGCA
GGGCCAGCTCAAGTTTAAGTTTCATGCACTGGTACCAGCAGAAGCC
AGGATCCTCCCCCAAACCCTGGATTTATGCCACATCC

5' Primer for N-template (SEQ ID no. 28):
GATATTCAACTCACACAGTCTCCATCAAGTCTTTCTGCATCTGTG

3' Primer for N-template (SEQ ID no. 29):
GGAC<u>TCCGGA</u>AGCCAGGTTGGATGTGGCATAAATCCAGGG

C-terminal sense strand template DNA sequence (SEQ ID no. 30):
TTCAGTGGCAGTGGGTCTGGGACCGAGTTCACTCTCACAATCAGCA
GTTTGCAGCCTGAAGATTTCGCCACTTATTTCTGCCATCAGTGGAGT
AGTAACCCGCTCACGTTCGGTGCTGGG

5' Primer for C-template (SEQ ID no. 31):
GGCTT<u>CCGGA</u>GTCCCTAGTCGCTTCAGTGGCAGTGGGTCTGGG

3' Primer for C-template (SEQ ID no. 32):
CCGTAGAACGGTCAGCTTGGTCCCAGCACCGAACGTGAGCGG

Joining site: BspEI

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